Amendments to the Claims

89. (Previously presented) A cobalt-on-γ-alumina catalyst having improved attrition resistance for Fischer-Tropsch hydrocarbon synthesis, said cobalt-on-γ-alumina catalyst being produced by a method comprising the steps of:

(a) calcining a boehmite material at a temperature and for a time effective to convert at least most of the boehmite material to a γ-alumina support material;

(b) treating said γ-alumina support material with an acidic aqueous solution; and then

(c) forming said cobalt-on-γ-alumina catalyst by depositing cobalt on said γ-alumina support in an amount effective to catalyze said Fischer-Tropsch hydrocarbon synthesis,

wherein said γ-alumina support material is treated in step (b), prior to depositing said cobalt in step (c), with said acidic aqueous solution at an acidity level effective for increasing the attrition resistance of said cobalt-on-γ-alumina catalyst for said Fischer-Tropsch hydrocarbon synthesis.

90. (Previously presented) The cobalt-on-γ-alumina catalyst of claim 89 wherein said γ-alumina support material is treated in step (b) with said acidic aqueous solution at an acidity level and in an amount effective for increasing the attrition resistance of said cobalt-on-γ-alumina catalyst for said Fischer-Tropsch hydrocarbon synthesis in a high agitation reaction system.

91. (Previously presented) The cobalt-on-γ-alumina catalyst of claim 90 wherein said high agitation reaction system is a slurry bubble column reactor.

92. (Previously presented) The cobalt-on γ-alumina catalyst of claim 90 wherein said acidic aqueous solution has a pH of not more than 5.

93. (Previously presented) The cobalt-on-γ-alumina catalyst of claim 90 wherein said γ-alumina support material has an average particle size of not more than 90 microns.

94. (Previously presented) The cobalt-on-γ-alumina catalyst of claim 90 wherein said acidic aqueous solution comprises water and nitric acid.

95. (Previously presented) The cobalt-on-γ-alumina catalyst of claim 94 further comprising the step, after step (b) and prior to step (c), of recalcining said γ-alumina support material at a temperature such that at least most of said γ-alumina support material remains in γ-alumina form.

96. (Previously presented) The cobalt-on-γ-alumina catalyst of claim 95 wherein said boehmite material is calcined in step (a) at a temperature in the range of from about 350°C to about 700°C.

97. (Previously presented) The cobalt-on-γ-alumina catalyst of claim 96 wherein said γ-alumina support material is recalcined in said step of recalcining at a temperature of about 350°C.

98. (Previously presented) The cobalt-on-γ-alumina catalyst of claim 97 wherein said boehmite material is calcined in step (a) at a temperature of about 500°C.

99. (Previously presented) The cobalt-on-γ-alumina catalyst of claim 94 wherein said acidic aqueous solution has a pH in the range of from about 3 to about 1.

100. (Previously presented) The cobalt-on-γ-alumina catalyst of claim 89 wherein said boehmite material is spray-dried synthetic boehmite.

101. (Previously presented) A γ-alumina catalyst support having improved attrition resistance for Fischer-Tropsch hydrocarbon synthesis, said γ-alumina catalyst support being produced by a method comprising the steps, prior to adding any catalytic material to said γ-alumina catalyst support, of:

(a) calcining a boehmite material at a temperature and for a time effective to convert at least most of said boehmite material to a particulate γ-alumina support material having an average particle size of not more than 90 microns and then

(b) treating said particulate γ-alumina support material with an acidic aqueous solution comprising water and nitric acid at a pH of not more than 5 and in an amount effective for increasing the attrition resistance of said particulate γ-alumina support material for said Fischer-Tropsch hydrocarbon synthesis and then

(c) prior to adding any catalytic material to said particulate γ-alumina support material, recalcining said particulate γ-alumina support material at a temperature such that at least most of said particulate γ-alumina support material remains in γ-alumina form.

102. (Previously presented) The γ-alumina catalyst support of claim 101 wherein said particulate γ-alumina support material is treated in step (b) with said acidic aqueous solution at an acidity level and in an amount effective for increasing the attrition resistance of said particulate γ-alumina support material for said Fischer-Tropsch hydrocarbon synthesis in a high agitation reaction system.

103. (Previously presented) The γ-alumina catalyst support of claim 102 wherein said high agitation reaction system is a slurry bubble column reactor.

104. (Previously presented) The γ-alumina catalyst support of claim 101 wherein said acidic aqueous solution consists essentially of water and nitric acid and has a pH in the range of from about 3 to about 1.

105. (Previously presented) The γ-alumina catalyst support of claim 101 wherein said boehmite material is a spray-dried synthetic boehmite material.

106. (Previously presented) The γ-alumina catalyst support of claim 101 wherein said boehmite material is calcined in step (a) at a temperature in the range of from about 350° to about 700°C and said particulate γ-alumina support material is recalcined in step (c) at a temperature of about 350°C.

107. (Canceled)

108. (Canceled)